ABSTRACT OF THE DISCLOSURE

If a machining program is reproduced in a robot controller and a robot is moved on a machining route, then a detection signal of a distance sensor is fetched through a distance sensor amplifier, and tracer control is carried out so as to keep a distance between a laser machining head and a workpiece at a predetermined value. In an acceleration and decoration processing in a corner, a restriction means that restricts a maximum acceleration and a maximum jerk is used to control an acceleration and a jerk of the robot not to exceed respective predetermined values, and prevents generation of a vibration when the laser machining head passes through the corner.